UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/051,070	04/02/1998	STEPHEN CLIFFORD APPLEBY	36-1201	7570

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NIXON & VANDERHYE, PC
1100 N GLEBE ROAD
8TH FLOOR
ARLINGTON, VA 22201-4714

EXAMINER
PHAN, THAI Q

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/051,070	Applicant(s) Appleby, Stephen
	Examiner Thai Phan	Art Unit 2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___3___ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Jan. 28, 2003* _____ .

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-16 and 20-30* _____ is/are pending in the application.

     4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-16 and 20-30* _____ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

     If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☒ All b) ☐ Some* c) ☐ None of:

       1. ☒ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     *See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

     a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

4) ☐ Interview Summary (PTO-413) Paper No(s). _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____

U. S. Patent and Trademark Office

PTO-326 (Rev. 04-01)   Office Action Summary   Part of Paper No. 24

DETAILED ACTION

This Office Action is responsive to applicant's amendment filed on Jan. 26, 2003.

Claims 1-16, and 20-30 are pending in this Office action.

Drawings

1.   Acknowledgment has been made for submission of the formally accepted drawings.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3.   Claims 1-16 and 20-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et

al., patent no. 5,649,057.

As per claim 1, Lee anticipates method and system for speech language recognition

employing a key word training model and non-key word model with feature limitations identical

to the claimed (Abstract and Summary of the Invention). According to Lee, the method and

system includes:

means for outputting message to a user (Figs. 1 and 7, col. 5, line 28 to col. 6, line 61, for

example),

means for receiving input from the user (Figs. 1 and 7, cols. 5-6)

means for analyzing lexical structure (col. 3, lines 39-56, col. 5, lines 1-16), means for

storing rules specifying grammatically allowable relationships of words input (Figs. 1, 7, cols. 5-

6, for example),

a central processor Figs. 1 and 7, cols. 5-7 for processing user dialogue, for example, of

the present patent which includes lexical rules or grammar to recognize and handle the

occurrence of words or spoken language through the input devices (col. 6, lines 5-14), contained

in the lexical rules the relationships specifying by rules in accordance with the data specified in

the transaction, key word objects or non-keyword objects, object attributes, etc. in the database of

the system, a transaction storage means for containing data relating to allowable transactions

between users interaction (Figs. 1 and 7) and independence upon recognition, to generate output

dialogue in the most recent or current to meet real time requirement or time duration relying on

constraints applied to the training model (Figs. 1 and 7, cols. 5-7) for recognizing dialogue

language (col. 6, lines 5 to col. 7, line 31),

and an output means for making output dialogue available for dialogue purpose (Figs. 1

and 7, cols. 5-7).

Lee anticipates method and system for speech language recognition employing a key word

training model and non-key word model with feature limitations very identical to the claimed

(Abstract and Summary of the Invention). According to Lee, the method and system includes: :

means for outputting message to a user (Figs. 1 and 7, col. 5, line 28 to col. 6, line 61, for

example),

means for receiving input from the user (Figs. 1 and 7, cols. 5-6)

means for analyzing lexical structure (col. 3, lines 39-56, col. 5, lines 1-16), means for

storing rules specifying grammatically allowable relationships of words input (Figs. 1, 7, cols. 5-

6, for example),

a central processor Figs. 1 and 7, cols. 5-7 for processing user dialogue, for example, of

the present patent which includes lexical rules or grammar to recognize and handle the

occurrence of words or spoken language through the input devices (col. 6, lines 5-14), contained

in the lexical rules the relationships specifying by rules in accordance with the data specified in

the transaction, key word objects or non-keyword objects, object attributes, etc. in the database of

the system, a transaction storage means for containing data relating to allowable transactions

between users interaction (Figs. 1 and 7) and independence upon recognition, to generate output

dialogue in the most recent or current to meet real time requirement or time duration relying on

constraints, and such constraints are applied and removed in appropriate manner to the fully

automatic training model (Figs. 1 and 7, col. 5, lines 9-16, col. 6, lines 43-61, and col. 7, lines

10-25) for recognizing dialogue language in an effective manner (col. 6, lines 5 to col. 7, line 31),

and an output means for making output dialogue available for dialogue purpose (Figs. 1

and 7, cols. 5-7).

Claim 2 is thus rejected in like manner.

As per claim 3, Lee anticipates dialogue or spoken language grammar which would

include such as number, genders, etc.

As per claims 4-5, Lee discloses dialogue recognization (col. 3, General Description, col. 6, lines 5-14) based on such as semantic grammar rules, syntactic structures, lexicons, etc. Which would include detect recognized errors as claimed

As per claim 6, Lee anticipates language training model for different target languages.

As per claims 7-11, Lee anticipates the system for use to recognize text, speech, voice, other peripheral device inputs for user dialogue, etc.

As per claim 12, Lee anticipated interactively interface for user which would include speech synthesizer as claimed for dialogue.

As per claims 13-15, Lee disclosed user interface (Figs. 1 and 7, cols. 5-7), including a computer, display, input means and graphic user interface for interactive with speaking user.

As per claim 16, Lee disclosed communication channel in a recognition network connected dialogue server remotely such as in central telecommunication system (Abstract).

As per claim 20, Lee dialogue recognition includes rules to recognize characters, numbers, or gender, etc. as claimed.

As per claims 21-23, Lee anticipates lexical rules of syntax, grammars, etc. which would include inflection rules as claimed.

As per claim 24, Lee anticipates method and system for speech language recognition employing a key word training model and non-key word model with feature limitations very identical to the claimed (Abstract and Summary of the Invention). According to Lee, the method and system includes:

means for outputting message to a user (Figs. 1 and 7, col. 5, line 28 to col. 6, line 61, for

example),

means for receiving input from the user (Figs. 1 and 7, cols. 5-6)

means for analyzing lexical structure (col. 3, lines 39-56, col. 5, lines 1-16), means for

storing rules specifying grammatically allowable relationships of words input (Figs. 1, 7, cols. 5-

6, for example),

a central processor Figs. 1 and 7, cols. 5-7 for processing user dialogue, for example, of

the present patent which includes lexical rules or grammar to recognize and handle the

occurrence of words or spoken language through the input devices (col. 6, lines 5-14), contained

in the lexical rules the relationships specifying by rules in accordance with the data specified in

the transaction, key word objects or non-keyword objects, object attributes, etc. in the database of

the system, a transaction storage means for containing data relating to allowable transactions

between users interaction (Figs. 1 and 7) and independence upon recognition, to generate output

dialogue in the most recent or current to meet real time requirement relying on constraints

applied to the training model (Figs. 1 and 7, cols. 5-7) for recognizing dialogue language (col. 6,

lines 5 to col. 7, line 31),

and an output means for making output dialogue available for dialogue purpose (Figs. 1

and 7, cols. 5-7). Claim 24 is thus rejected in like manner.

As per claim 25, Lee anticipates dialog conversion rules including lexicon rules or

constraint rules or relations, and Lee anticipates such rules or conversation constraints would be

removed (col. 6, lines 43-61, col. 7, lines 10-27) to intially train model effectively. In other

words, constraint removal is equivalent to relationship relaxed to optimally train model

effectively (col. 7, lines 10-27).

As per claims 26-27, Lee requires hardware such as a digital signal processing processor

as in the claims for performing such claimed limitations.

As per claims 28-29, Lee anticipates method and system for speech language recognition

employing a key word training model and non-key word model with feature limitations very

identical to the claimed (Abstract and Summary of the Invention). According to Lee, the method

and system includes:

means for outputting message to a user (Figs. 1 and 7, col. 5, line 28 to col. 6, line 61, for

example),

means for receiving input from the user (Figs. 1 and 7, cols. 5-6)

means for analyzing lexical structure (col. 3, lines 39-56, col. 5, lines 1-16), means for

storing rules specifying grammatically allowable relationships of words input (Figs. 1, 7, cols. 5-

6, for example),

a central processor Figs. 1 and 7, cols. 5-7 for processing user dialogue, for example, of

the present patent which includes lexical rules or grammar to recognize and handle the

occurrence of words or spoken language through the input devices (col. 6, lines 5-14), contained

in the lexical rules the relationships specifying by rules in accordance with the data specified in

the transaction, key word objects or non-keyword objects, object attributes, etc. in the database of

the system, a transaction storage means for containing data relating to allowable transactions

between users interaction (Figs. 1 and 7) and independence upon recognition, to generate output

dialogue in the most recent or current to meet real time requirement relying on constraints

applied to the training model (Figs. 1 and 7, cols. 5-7) for recognizing dialogue language (col. 6,

lines 5 to col. 7, line 31),

and an output means for making output dialogue available for dialogue purpose (Figs. 1

and 7, cols. 5-7). Claims 28 and 29 are thus rejected in like manner.

As per claim 30, due to similarity of claim 30 to 2, and Lee additionally anticipates a

plurality of lexical rules for known natural languages conversation or language dialogue, and

relationships of these rules for conversation (col. 3, General Description, col. 6, lines 5-23, col.

7). Lee also anticipates constraint or dialogue relations relaxation for rule-based learning to

reduce memory requirement (Summary of the Invention and col. 7, lines 10-27). Claim 30 is

also rejected in like manner.

Response to Arguments

4.   Applicant's arguments filed Jan. 28, 2003 have been fully considered but they are not

persuasive.

In response to applicant's argument Lee fails to disclose means for storing data

representative of messages output by an output device (page 4, paragraph 1), the examiner

disagrees with. Lee discloses output means for making output dialogue available for dialogue

purpose or for storing data representative of messages output by an output device (Figs. 1 and 7,

cols. 5-7).

In response to applicant's argument fails to disclose determining whether input is an

allowable response to a preceding message (page 4, paragraph 1), the examiner disagrees with.

Lee discloses speech recognition to determine whether input is an allowable response to a

preceding message (Abstract, col. 5, lines 9-17, col. 6, lines 5-13, for example).

In response to applicant's argument Lee does not disclose determining whether input is an

allowable response to a preceding message (page 4, paragraph 1), the examiner disagrees with.

Lee discloses speech language recognition for recognizing spoken words. Lee requires Hidden

Markov Model to recognize words input as allowable response to a preceding message (col. 5,

lines 5-16, col. 7, lines 10-27, for example).

In response to applicant's argument Lee fails to disclose a <u>training apparatus for training a</u>

<u>user to engage in transactions with another person whom the apparatus is arranged to simulate or</u>

<u>an "interactive dialogue apparatus".</u> (page 5, paragraph 1), the examiner responds such feature as

in the applicant's argument does not appear in the claims or in the functional language.

In response to applicant's reponse Lee fails to disclose rules with relationship criterion

relaxed (page 5, second paragraph), the examiner responds Lee discloses removing constraints in

training procedure (col. 7, lines 10-27). Such constraint removal is equivalent to relationship

relaxed for automatically training the model effectively.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

1.   US patent no. 5,652,897, issued to Linebarger et al., on July 1997

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this

final action.

7.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Thai Phan whose telephone number is (703) 305-3812.

Any inquiry of a general nature or relating to the status of this application should be

directed to the Group receptionist whose telephone number is (703)305-3900.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 746-7238, (for Formal communications; please mark "EXPEDITED

PROCEDURE"),

Or:

(703) 746-7239 (for Unofficial Fax communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington. VA., Sixth Floor (Receptionist).

April 7, 2003

SAMUEL BRODA, ESQ.
PRIMARY EXAMINER